

Application No.: 10/036637

Case No.: 57428US002

RESPONSE

Remarks

Claims 18 and 29 have been cancelled, claim 5 has been amended to remove a typographical error and claims 1 and 20 have been amended to place the application in condition for allowance. Claims 1 - 17, 19 - 28 and 30 - 37 are currently pending.

Examination and reconsideration of the application as amended is requested.

Allowable Subject Matter

The Office Action includes evidence of allowable subject matter according to the following statement, which is included for convenience.

3. Claims 18, & 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As indicated previously, claims 18 and 29 have been cancelled and their limitations have been included in amended claims 1 and 20 respectively, which, according to the Office Action, provides allowable independent claims. Since claims 2 - 17 and 19 add further limitation to claim 1 and claims 21 - 28 and 30 - 37 add further limitations to claim 20, following amendment for allowance of claims 1 and 20, all currently pending claims 1 - 17, 19 - 28, and 30 - 37 should be allowable.

Claims Rejections Under 35 U.S.C. §103

The Office Action indicates rejection of claims 1 - 17, 19 - 28 and 30 - 37 under 35 U.S.C. §103(a) as being unpatentable over Miller 6,373,614 in view of Shieh 6,384,956.

Amendment of claims 1 and 20, to incorporate limitations of original claims 18 and 29 respectively, provides allowable claims overcoming rejection under 35 U.S.C. §103(a). Claims 18 and 29 have been cancelled and all other claims have dependency from either amended claim 1 or amended claim 20. All currently pending claims are patentable over Miller in view of Shieh. The rejection of claims under 35 U.S.C. §103(a) as being unpatentable over the cited references has been overcome and should be withdrawn.

Applicant has made an earnest attempt to provide amendments placing the application in condition for allowance. Request is respectfully made for reconsideration of the application and allowance of claims 1 - 17, 19 - 28 and 30 - 37.

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Please charge Deposit Account 13-3723 any amounts due and owing by reason of this response. For further questions, please contact Applicant's agent who may be reached at telephone number (512) 984-5258.

Respectfully submitted,

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Date

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Version of the claims with markings to show changes made.

1. (amended) A polarization transformer operable to reorient polarization components of an incident optical signal, the polarization transformer comprising:

a continuously adjustable retarder operable to provide reset-free operation and continuous control of a polarization state of the optical signal; and

a limited range adjustable retarder located in optical communication with the continuously adjustable retarder and operable to provide limited-range control of the polarization state of the optical signal, wherein the limited range adjustable retarder has a first response time and the continuously adjustable retarder has a second response time, the first response time being shorter than the second response time.

5. (amended) The polarization transformer of claim 1, wherein the continuously adjustable retarder is located with respect to the limited-range adjustable retarder so as to receive the optical signal from an optical source and to transfer a transformed optical signal [the] to the limited-range adjustable retarder.

20. (amended) A system for compensating for polarization mode dispersion in an optical signal, the system comprising:

a polarization transformer operable to reorient polarization components of an incident optical signal, the polarization transformer including:

a continuously adjustable retarder operable to provide reset-free operation and continuous control of a polarization state of the optical signal; and

a limited range adjustable retarder located in optical communication with the continuously adjustable retarder and operable to provide limited-range control of the polarization state of the optical signal, wherein the limited range adjustable retarder has a first response time and the continuously adjustable retarder has a second response time, the first response time being shorter than the second response time;

a delay system operable to adjust the relative delay between a first reoriented polarization component of the optical signal and a second reoriented polarization component of the optical signal; and

a controller coupled to the polarization transformer and operable to provide control signals to the limited-range adjustable retarder and the continuously adjustable retarder.